BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents *will not* correct images, please do not report the images to the Image Problem Mailbox.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/753,855	01/03/2001	Mark C. Chu-Carroll	YOR920000155-US2	1763

7590 07/15/2004

Anne Vachon Dougherty
3173 Cedar Road
Yorktown Heights, NY 10598

EXAMINER	
ORTIZ, BELIX M	

ART UNIT	PAPER NUMBER
2175	

DATE MAILED: 07/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/753,855	CHU-CARROLL ET AL.	
	Examiner	Art Unit	
	Belix M. Ortiz	2175	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) *15-30 and 36* is/are allowed.

6)☒ Claim(s) *1-14,31-35,37 and 39* is/are rejected.

7)☒ Claim(s) *38* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

SAM RIMELL
PRIMARY EXAMINER

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: in figure 2, reference character "224", is not described in the written description. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 3 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the drawings: character "24", in page 13, line 24 and figure 6, in page 36, line 8, are not shown on the drawings. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. Applicant is required to submit a proposed drawing correction in reply to this Office action. However, formal correction of the noted defect may be deferred until after the examiner has considered the proposed

drawing correction. Failure to timely submit the proposed drawing correction will result in the abandonment of the application.

Specification

4. The specification is objected to because the arrangement of the disclosed application does not conform with 37 CFR 1.77(b).

Section headings appear in bold and in lower case format throughout the disclosed specification. Section heading should not be bold faced and should appear in uppercase format. Appropriate corrections are required based on the guidelines provided below:

5. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.
(b) CROSS-REFERENCE TO RELATED APPLICATIONS.
(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
(d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or

REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)

(e) BACKGROUND OF THE INVENTION.

(1) Field of the Invention.

(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

(f) BRIEF SUMMARY OF THE INVENTION.

(g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

(h) DETAILED DESCRIPTION OF THE INVENTION.

(i) CLAIM OR CLAIMS (commencing on a separate sheet).

(j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

(k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the

prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. Claims 1-14, 31-35, 37, and 39 are rejected under 35 U.S.C. 102(e) as being anticipated by Hanzek (U.S. patent 6,654.726).

As to claim 1, Hanzek teaches a method performing dynamic parsing of structured documents (see figure 9 and column 14, lines 46-50), the method comprising:

obtaining a first structured document (see figure 9 and characters 902 and 904);

identifying a document type for the first structured document (see figure 9, character 904);

finding an extension component to process the first structured document (see figure 9 and characters 904 and 906); and

invoking the extension component upon the first structured document to generate a usable in-memory data structure (see figures 9, characters 612 and 908 where is read on "search result").

As to claim 2, Hanzek teaches where the structured document is written in XML (see figures 9 and 10 and column 14, lines 34-38).

As to claim 3, Hanzek teaches a method for generating heterogeneous data structures (see figure 9), the method comprising:

having a first program and a second program, the first program having a set of structured data in a first data structure (see figure 9, characters 902 and 904, where "first program" is read " listener" and "second program" is read "parser");

sending a first document including data from the first data structure to the second program (see figure 9, characters 902 and 904);

employing dynamic parsing to parse the first document into a second data structure for use by the second program (see figure 9, where the dynamic parsing and parses the message into a second data structure sent to the dispatcher).

As to claim 4, Hanzek teaches the method used for e-commerce (see column 1, lines 52-53).

As to claim 5, Hanzek teaches where the step of sending includes obtaining a request and responding to the request (see column 1, lines 60-67).

As to claim 6, Hanzek teaches where the step of parsing performed by the second program (see figure 9).

As to claim 7, Hanzek teaches a method for linking heterogeneous data structures (see figure 9), the method comprising:

providing a first program with a first set of data in a first data structure (see figure 9, character 902, where the first program is the listener and it receive first data (XML data) in a first format (XML message));

providing second program with the first set of data in a second data structure (see figure 9, character 904, where the second program is the parser and it receives first set of data (XML data) in a second format (XML message));

receiving information indicating a change in one of the first and the second data structures to a third data structure (see figure 9, character 906, where the dispatcher receives the changes first data structure and further changes the data into a third data structure (sear parameters)); and

modifying the one of the first and the second data structure into fourth data structure in correspondence with the third data structure (see figure 9, characters 612 and 908, where these further modified by searcher to produce a fourth data structure (search result)).

As to claim 8, Hanzek teaches wherein the step receiving information includes the first program sending the information (see figure 9, character 902, where the first program is the listener and it receive first data (XML data) in a first format (XML message)).

As to claim 9, Hanzek teaches a method for linking heterogeneous data structures (see figure 9), the method

comprising:

providing a first program with a first set of data in a first data structure (see figure 9, character 902, where the first program is the listener and it receive first data (XML data) in a first format (XML message));

providing second program with the first set of data in a second data structure (see figure 9, character 904, where the second program is the parser and it receives first set of data (XML data) in a second format (XML message));

receiving information indicating a change in one of the first and the second data structures to a third data structure (see figure 9, character 906, where the dispatcher receives the changes first data structure and further changes the data into a third data structure (sear parameters)); and

modifying the one of the first and the second data structure into fourth data structure in correspondence with the third data structure (see figure 9, characters 612 and 908, where these further modified by searcher to produce a fourth data structure (search result)).

As to claim 10, Hanzek teaches wherein the step of receiving information comprises the first program sending the information (see

figure 9, character 902, where the first program is the listener and it receive first data (XML data) in a first format (XML message)).

As to claim 11, Hanzek teaches an architecture neutral system for building clients that access a legacy system, the neutral system (see column 8, lines 60-67 and column 9, lines 1-3) comprising:

an association module for associating each data object in the legacy system with a unique ID and with a location in a virtual table data structure (see abstract and column 31, lines 1-9);

receiving module for receiving a request from a client for the legacy system to provide information about a requested property specific data object identified by the unique ID (see column 31, lines 1-18);

an identifier module for identifying requested property by a name (see column 16, lines 52-58);

a program for module for providing a query handler extension for each property which a client can request (see figure 13);

a query handler extension module for producing value representing the location in the virtual table data structure (see figure 13); and

a transmitting module for transmitting the value to the client using a communication system, whereby the client can access the object in the virtual table (see figure 34).

As to claim 12, Hanzek teaches wherein the query handler extension module includes a program executable on the identified object (see figure 11).

As to claim 13, Hanzek teaches a method for building clients that access a legacy system, the method (see column 8, lines 60-67 and column 9, lines 1-3) comprising:

associating each data object in the legacy system with a unique ID (see abstract and column 31, lines 1-9);

making a request from a client for the legacy system to provide information about a requested property specific data object identified by the unique ID (see column 31, lines 1-18);

identifying requested property by a name (see column 16, lines 52-58);

providing a query handler extension for each property which a client can request (see figure 13);

the query handler extension producing value representing location in the data object in a virtual table data structure (see figure 13); and

transmitting the value to the client for client queries regarding the data object (see figure 34).

As to claim 14, Hanzek teaches wherein the query handler extension comprises a program executable on the identified object (see figure 11).

As to claim 31, Hanzek teaches a method of creating replicas in computing environment comprising least a first and a second machine (see figure 7B, characters 601 and 632), the method comprising:

moving data from a first machine to a second machine to form the replica (see figure 8, 10, and 11); and

communicating an updating event on the first machine to the second machine to keep the data consistent, the updating event being associated with the data (see column 2, lines 19-30).

As to claim 32, Hanzek teaches wherein the replica includes only a portion of the data (see column 2, lines 25-26).

As to claim 33, Hanzek teaches wherein the data is in a first form on the first machines and the replica is transformed into a second form on the second machine (see figure 8, 10 and 11 and column 14, lines 26-31).

As to claim 34, Hanzek teaches the method as recited further comprising communicating an updating event on the second machine to the first machine keep the data consistent (see column 14, lines 26-33).

As to claim 35, Hanzek teaches wherein the step of moving includes responding to least one query (see column 3, lines 61-67).

As to claim 37, Hanzek teaches a method for developing an interactive application (see figure 8, 10, and 11), the method comprising:

implementing server program containing at least code for parsing a first data structure (see column 14, lines 46-55);

implementing dynamic parsing on a first data structure to form a second data structure (see column 14, lines 44-48);

linking the first and second data structures (see figure 9 and 10); and

providing a client application which employs the processes of linking and parsing (see figure 9 and 10).

As to claim 39, Hanzek teaches a computing architecture for providing replicated data structures (see column 14, lines 26-28) comprising:

a server comprising an event management component having at least one event handler, a query management component having at least one query handler and at least one server database location for storing server data (see column 7, column 46-54); and

a client comprising a query generator, an event management component having at least one event handler, a user interface, and a

dynamic parsing component with at least parser extension for accessing the server data (see column 7, lines 44-64 and column 13, lines 30-37).

Allowable Subject Matter

8. Claim 38 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Claims 15-30 and 36 are allowed.

10. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record, Hanzek (U.S. patent 6,654,726) do not disclose, teach, or suggest the claimed limitations of (in combination with all other features in the claim):

An architecture neutral system for building clients that access a legacy system, the neutral system comprising:

at least one client location;

at least one server location;

bi-directional communication link connecting each of the at least one client and server for transmitting two kinds of messages, a first

message being a synchronous query/response, and a second message being an asynchronous subscription based event notification, whereby arbitrary data structure a can be rendered into a standard communication format applying the contents of an asynchronous subscription based event notification for providing synchronous query/response communications, as claimed in claim 15.

Claims 16-20 are objected to as being dependent from the objected to dependent claim 15.

The prior art of record, Hanzek (U.S. patent 6,654,726) do not disclose, teach, or suggest the claimed limitations of (in combination with all other features in the claim):

A method for building clients that access a legacy system, the method comprising:

forming a simple bi-directional communication link between each of the clients and a server; and

transmitting along the communication link two kinds messages, a first message being synchronous query/response, and a second message being an asynchronous subscription based event notification, to allow arbitrary data structures to be rendered into a standard communication format, as claimed in claim 21.

Claims 22-30 and 38 are objected to as being dependent from the objected to dependent claim 21.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Belix M. Ortiz whose telephone number is 703-305-7605. The examiner can normally be reached on moday-friday 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on 703-305-3830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

bmo

July 9, 2004.

SAM RIMELL
PRIMARY EXAMINER